Aim

To create a Python program that draws a line with suitable labels on the x-axis, y-axis, and includes a title.

Algorithm

- 1. Import necessary libraries (matplotlib.pyplot)
- 2. Create sample data for \boldsymbol{x} and \boldsymbol{y} axes
- 3. Create a new figure and axis object
- 4. Plot the line using the sample data
- 5. Set the title of the graph
- 6. Set labels for x and y axes
- 7. Display the graph

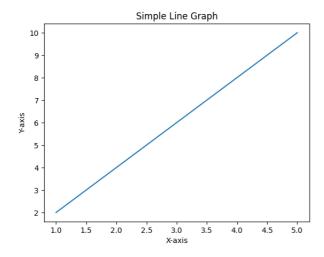
Code

```
import matplotlib.pyplot as plt
import numpy as np

x,y = [1, 2, 3, 4, 5],[2, 4, 6, 8, 10]
fig, ax = plt.subplots()
ax.plot(x, y)
ax.set_title('Simple Line Graph')
ax.set_xlabel('X-axis')
ax.set_ylabel('Y-axis')

plt.show()
```

Output



Result

The program successfully creates a line graph with proper labels on both axes and a title using matplotlib in Python.